

REAL-TIME SITUATION REPORT SYSTEM AND METHOD

BACKGROUND OF THE INVENTION

Field of Invention

The invention relates to a real-time situation report system and method and, in particular,
5 to a system and method for electronic networking devices.

Related Art

Conventional situation report systems mainly send a voice message or make a call
through telephones to report current abnormal situations occurred to the system. The
manager then goes to the place where the situations happen to solve the problems.

10 However, these conventional situation report systems have some drawbacks. One of
them is that the warning is usually provided to the manager, and then the manager goes to
solve the problem on scene. Sometimes, only the manager can learn of the more accurate
situation from his or her office and then go to solve the problem. Such a method often makes
the situation more complicated or even perilous because the problem cannot be solved
15 immediately. Furthermore, even if the system provides a warning to the manager, such a
signal only notifies the manager that there are problems without indicating where the
problem is or what happens. Thus, the problem cannot be solved immediately either.

If the manager is not in the office but some emergent situation happens, then the
conventional situation report system cannot notify the manager immediately. As described
20 before, the manager thus usually misses the best time for solving the problems. If the
problem is minor, the manager may only experience some troubles; but if the problem is
serious, it may cause great loss to the company.

Therefore, it is highly desirable to provide an improved solution to the above drawback.
With the user of modern electronic techniques, the user can understand the situations of the

whole environment using a mobile phone or a PDA (personal digital assistant) that can link with the network. Then the user can go to solve any problem on scene as soon as possible. For more serious or dangerous problems, the user can even notify the police for further help. The invention thus allows the manager to understand all situations and to make immediate responses.

SUMMARY OF THE INVENTION

In view of the foregoing problems, an objective of the invention is to provide a real-time situation report system and method, which link a server host on one end to a mobile electronic networking device on another end through a network and transmit situation messages to a user using a common transfer protocol.

Another objective of the invention is to provide a real-time situation report system and method, which allows to learn of what are happening from a mobile or a fixed terminal.

The system includes at least a signal control module, an I/O (input/output) unit, an access database, and a central processing module. The signal control module receives abnormal signals. The I/O unit is connected with the signal control module and a mobile electronic networking device for transmitting situation messages. The access database stores a situation report program and multimedia data. The central processing module is connected with the I/O unit and the access database for transmitting and receiving data, messages and commands to and from the I/O unit and the access database.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will become more fully understood from the detailed description given hereinbelow illustration only, and thus are not limitative of the present invention, and wherein:

FIG. 1 is a schematic view showing the relation between the disclosed real-time situation report system and a mobile electronic networking device;

FIG. 2 is a schematic view showing the relation among the disclosed signal control module and sensors; and

FIG. 3 shows the operation procedure of the real-time situation report method.

DETAILED DESCRIPTION OF THE INVENTION

5 This specification discloses a real-time situation report system and method, which connects a server host on one end and a mobile electronic networking device on another end through a network to transmit situation messages to users using a common transfer protocol. Through the operation of the system and method, a user can learn of what is happening from a mobile or fixed terminal. From FIG. 1, we can understand the relation between a mobile electronic networking device 120 and a server host 110 and important components and modules inside the server host 110.

10 First, the mobile electronic networking device 120 is connected to the server host 110 through a network environment 100. The server host 110 is comprised of an I/O unit 180, a signal control module 130, a central processing module 190 and an access database 195. The signal control module 130 receives abnormal signals. The I/O unit 180 is connected with the signal control module 130 and a mobile electronic networking device 120 for transmitting situation messages. The access database 195 stores a situation report program and multimedia data. The central processing module 190 is connected with the I/O unit 180 and the access database 195 for transmitting and receiving data, messages and commands to and from the I/O unit 180 and the access database 195.

The mobile electronic networking device 120 can be selected from the group consisting of a mobile phone, a PDA (personal digital assistant), and a notebook computer.

As shown in FIG. 2, abnormal signals come from sensors. The signal control module 130 can connect to a smoke detector group 140 (smoke detector 1 141, ..., smoke detector n 145), an IR (infrared) sensor group (IR sensor 1 151, ..., IR sensor n 155), an answering

machine group 160 (answering machine 1 161, ..., answering machine n 165), and a camera group 170 (camera 1 171, ..., camera n 175).

In the following texts, we will explain the whole system with simultaneous reference to FIGS. 1 and 2. Suppose the smoke detector 1 141 detects excess smoke at its location, an abnormal signal is immediately transmitted to the signal control module 130. After receiving the signal, the signal control module 130 first starts nearby cameras and then sends an abnormal signal and the information on the smoke detector 1 141 to the server host 110. After receiving the abnormal signal and the information on the smoke detector 1 141, the central processing module 190 in the server host 110 first retrieves the physical position data of all the smoke detectors in the smoke detector group 140 from the access database 195. After comparison and organization, a situation message is generated and transmitted to the I/O unit 180.

Afterwards, the I/O unit 180 transmits the situation message to the mobile electronic networking device 120 through the network 100 using a common transfer protocol. The mobile electronic networking device displays the situation message to the user. The transfer protocol is selected from the group consisting of HTTP (hypertext transfer protocol), FTP (file transfer protocol), WAP (wireless application protocol), GPRS (general packet radio service, GSM (global system for mobile), W-CDMA (wideband code division multiple access), IR wireless transfer protocol, Bluetooth, IEEE802.11a Standards, IEEE802.11b Standards, wireless LAN (local area network). What the user receives the situation message, he or she can clearly understand when, where, and what is happening.

With reference to FIG. 3, after the user starts the real-time situation report program of the system (step 200), the user can communicate with the server host 110 from any electronic networking device 120 that can connect to the network. Suppose the user is using a PDA as the electronic networking device 120 and starts the real-time situation report program of the system. When the signal control module 130 receives an abnormal signal sent out from some sensor, the signal control module 130 immediately transmits the abnormal signal to the server

host 110 of the system. The I/O unit 180 of the server host 110 receives an abnormal signal (step 210). The system starts to search and identify the physical position of the abnormal signal (step 220). After making sure of the physical position and organizing the data, the I/O unit 180 of the system sends out the situation message of the abnormal signal and the physical position to the PDA (step 230). The situation message and a warning signal are displayed on the PDA (step 240). After reading the situation message from the server host, the user can make instantaneous responses to the actual situation.

While the invention has been described by way of example and in terms of the preferred embodiment, it is to be understood that the invention is not limited to the disclosed embodiments. To the contrary, it is intended to cover various modifications and similar arrangements as would be apparent to those skilled in the art. Therefore, the scope of the appended claims should be accorded the broadest interpretation so as to encompass all such modifications and similar arrangements.